

Remarks

Claims 1, 5-6, 9-10, 12, and 13 are pending. Claims 2-4, 7-8, 11, and 14 are cancelled without prejudice.

Specification Objections:

In response to the Examiner's objection to the specification relating to informalities, Applicants have amended the specification by updating the status of the US Patent Application cited on page 6, and by correcting certain trademark usage.

Claim Objections:

Applicants have amended Claim 5 as suggested by the Examiner and cancelled Claim 2 to correct the noted informalities. Claim 1 was amended to exclude SEQ ID NO.:2 in accordance with the Restriction Requirement.

None of the amendments introduces new matter.

Rejection under 35 USC § 112

Claims 5, 6, 8-10, 12, and 13 stand rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. In particular the Examiner explained that Claim 5 was confusing because it did not specify that the promoter, untranslated leader sequence, gene of interest and 3' UTR are operably linked. Applicants respectfully traverse this rejection.

"[T]he language employed must be analyzed - not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art."

In re Moore, 169 USPQ 236, 237 (CCPA 1971). Applicants believe Claim 5 would be clearly understood by the ordinarily skilled artisan after reading the preamble alone, not to mention what is taught in the specification. Certainly the phrase "[a] recombinant expression cassette for expressing a foreign gene" would be understood by the ordinarily skilled artisan to mean that the recited vector elements must be operably linked to accomplish what is stated in the preamble.

However, to advance prosecution of the case, Applicants have amended Claim 5 by adding the phrase “the following operably linked vector elements” to expressly state that the expression vector elements must operate in unison.

In view of the foregoing amendment, Applicants respectfully request the Examiner to enter the amendment and to remove the rejection of Claims 1-3, 5, 6, 8-10, 12, and 13 under 35 USC § 112, second paragraph.

Rejection under 35 USC § 112

Claims 8, 12, and 13 stand rejected under 35 USC § 112, first paragraph, as failing to comply with the enablement requirement. Specifically the Examiner noted that a deposit of the claimed expression vector, pMYC3212, may be necessary to enable the rejected claims.

Applicants have cancelled Claim 8 and amended Claim 12 to depend from Claim 5 which does not recite pMYC3212. Claim 13 depends from Claim 12 and does not recite pMYC3212. Applicants believe this amendment will obviate the Examiner’s rejection. Consequently, Applicants respectfully request the Examiner to enter the amendment and to remove the rejection of Claims 8, 12, and 13 under 35 USC § 112, first paragraph.

Rejection under 35 USC § 102

The Examiner Rejected Claims 1, 2 and 3 under 35 USC § 102(b) as being anticipated by Paek *et al.* (NCBI, GenBank Sequence Accession No. L35913). Applicants respectfully traverse.

To constitute anticipation, all material elements of a claim must be found in one prior art reference. *In re Marshall*, 577 F2d 301 (C.C.P.A. 1978). Amended Claim 1 recites “[a]n isolated DNA molecule consisting of SEQ ID NO:1.” Applicants assert the material elements of their claim are “isolated DNA molecule” and “SEQ ID NO:1” which is a 332 bp DNA sequence that functions as a 3’ UTR. The transition word “consisting” makes it a closed claim meaning the claim does not read on larger sequences that contain SEQ ID NO:1.

Paek *et al.* disclose a 1277 bp cDNA maize lipase sequence and identify the putative coding region as 51-920 and a polyA site at 1277. While the 1277 bp sequence set forth by Paek *et al.* contains SEQ ID NO:1 when “N” at positions 65, 159 and 269 are all “G”, the reference does not identify or delineate any UTR’s or any 332 bp sequences. Most significantly the reference fails to identify the particular 332 bp, 3’UTR invented by Applicants.

To the ordinarily skilled artisan, the reference inherently may identify the beginning of a 3’UTR by virtue of having deduced a putative coding sequence from the maize lipase mRNA. If so, Paek *et al.* might then inherently identify the end of the UTR as bp number 1277 because no other sequence or base pair is identified between the ‘taa’ stop codon (918-920) and the polyA site at 1277. Therefore, the reference in no way can be said to describe or disclose a 332 bp, 3’ UTR, much less the ones invented by Applicants. Consequently, Paek *et al.* cannot anticipate Applicants’ claimed invention because one of the material elements in the claim is not found in the reference.

Based on the foregoing discussion and amendment, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 1, 2 and 3 under 35 USC § 102(b).

Rejection under 35 USC § 103

Claims 1-3, 5-6, 8-10 and 12-13 stand rejected under 35 USC §103(a) as being obvious and unpatentable over Paek *et al.* (NCBI, GenBank Sequence Accession No. L35913) in view of Ingelbrecht *et al.* (The Plant Cell, 1:671-680, 1989). Applicants respectfully traverse this rejection.

For the reasons described below, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness under the requirements of 35 USC § 103(a). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings (*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). Second, there must be a

reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. Finally, the prior art reference (or references when combined) must teach or suggest *all the claim limitations*. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Paek *et al.* was discussed and summarized above. Applicants' position is that the reference fails to disclose, identify or suggest a material element of Claim 1.

Applicants agree with the Examiner that Ingelbrecht *et al.* teaches the usefulness of using a 3' UTR for enhancing the expression of a foreign gene of interest in a transgenic plant and methods for transforming plant cells with expression cassettes designed to efficiently produce foreing proteins of interest in transgenic plants. It is important to note that Ingelbrecht *et al.* do not disclose or suggest Applicants' claimed 3' UTR.

As noted above, one of the requirements for establishing a *prima facie* case of obviousness is for the prior art reference (or references when combined) to teach or suggest all the claim limitations. Applicants maintain that neither reference, alone or in combination, teaches or suggests a material element of the claimed invention, namely SEQ ID NO:1. Therefore, Applicants assert that Paek *et al.* in view of Ingelbrecht *et al.* does not render the instant claims obvious.

In view the above, Applicants submit that their claimed invention is patentable over the combination of Paek *et al.* in view of Ingelbrecht *et al.* Applicants therefore respectfully request the Examiner to reconsider and withdraw the rejection of Claims 1-3, 5-6, 8-10 and 12-13 under 35 USC §103(a).

SUMMARY

A petition for extension of time under 37 CFR 1.136 is included with this amendment and provides for payment of the necessary fee under 37 CFR §1.17(a)(1) for a one month extension of time.

Amendments to the specification and claims were made to address certain objections and rejections raised by the Examiner in the Office Action mailed May 4, 2006. As a result, Claims 2-4, 7, 8, 11, and 14 were cancelled.

Applicants submit that in view of the above amendments and discussion, all pending claims, Claims 1, 5, 6, 9, 10, 12 and 13, are allowable as written and respectfully request early favorable action by the Examiner.

Respectfully submitted,



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Enclosures